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Spiders (Aranei) new to the fauna of Turkey. 2. New species records of Theridiidae

Пауки (Aranei) новые для фауны Турции. 2. Находки новых видов Theridiidae

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КЛЮЧЕВЫЕ СЛОВА: пауки, Theridiidae, новая находка, новый синоним, Турция.

ABSTRACT. Six species of Theridiidae are reported from Turkey for the first time: *Enoplognatha giladensis* (Levy & Amitai, 1982); *Euryopis episinoides* (Walckenaer, 1847); *Neottiura herbigrada* (Simon, 1873); *N. uncinata* (Lucas, 1846); *Theridion cinereum* Thorell, 1875; *T. pinastri* L. Koch, 1872. All species are illustrated on the basis of Turkish specimens. *Theridion refugum* Drensky, 1929 syn.n. was synonymised with *Theridion cinereum.* The total number of theridiids recorded from Turkey is now 66 species.

РЕЗЮМЕ. Шесть видов Theridiidae впервые отмечены для территории Турции: *Enoplognatha giladensis* (Levy & Amitai, 1982); *Euryopis episinoides* (Walckenaer, 1847); *Neottiura herbigrada* (Simon, 1873); *N. uncinata* (Lucas, 1846); *Theridion cinereum* Thorell, 1875; *T. pinastri* L. Koch, 1872. Все виды проиллюстрированы. *Theridion refugum* Drensky, 1929 syn.n. синонимизирован с *Theridion cinereum.* В общей сложности в Турции зарегистрировано 66 видов Theridiidae.

Introduction

This paper is the second in a series on new spider records from Turkey and is devoted to Theridiidae. In the previous paper [Marusik & Kunt, 2009] we reported six genera of Theridiidae previously unrecorded from Turkey. The total species richness of theridiids in Turkey was previously reported as 60. While studying collections kept in the Museum of the Turkish Arachnological Society and material collected during a joint Turkish–Russian expedition, we recognised six species new to the fauna of Turkey.

Specimens were photographed using an Olympus Camedia C-5050 camera attached to an Olympus SZX12 stereomicroscope. The images were montaged using "CombineZM" image stacking software. Photographs were taken in dishes of different size with paraffin in the bottom. Different sized holes were made in the bottom to keep the specimens in the correct position.

Each species is supplied with most appropriate identification references (chiefly well known identification books).

Material treated herein is deposited in the collections of the Turkish Arachnological Society and the Zoological Museum of Moscow State University.

Survey of species

Enoplognatha giladensis (Levy & Amitai, 1982)
Figs 1–4.

Anelosimus g.: Levy, 1998: 139, f. 260–264 (♂♀).
E. g.: Knoflach & Thaler, 2000: 412, f. 1–5, 8, 54–57 (♂♀).
E. g.: Huseynov & Marusik, 2008: 154, f. 19–23, 58, 66 (♂♀).

MATERIAL EXAMINED. 1 ♂, Antakya Province, Samandağ District, Batıayazı Village, 29.03.2009 (K.B. Kunt).

COMMENTS. This species has an eastern Mediterranean range and was known from three localities: Rhodes, Israel and Azerbaijan [Huseynov & Marusik, 2008; Platnick, 2009]. *E. giladensis* is a rather peculiar species and differs from its congeners in many respects. Males of this species have unmodified chelicerae and extremely long emboli, females have very long insemination ducts. Both sexes usually have a uniformly coloured abdomen, although it may be patterned, as in the specimen from Turkey.

Euryopis episinoides (Walckenaer, 1847)
Figs 5–8.

E. acuminata: Levy, 1998: 144, f. 265–274 (♂♀).
E. acuminata: Song et al., 1999: 119, f. 62L–O (♂♀).

MATERIAL EXAMINED. 1 ♂, Antalya Province, Serik District, a tomato glasshouse, 15.04.2006 (T. Danışman).

COMMENTS. This species has a rather unusual palp and distribution range. It is known from the Mediterranean



Figs 1–4. Male of *Enoplognatha giladensis*: 1 — habitus, dorsal; 2–4 — palp, prolateral, retrolateral and ventral respectively.

Рис. 1–4. Самец *Enoplognatha giladensis*: 1 — габитус, сверху; 2–4 — пальпа, пролатерально, ретролатерально и вентрально соответственно.



Figs 5–8. Male of *Euryopes episinoides*: 5 — habitus, dorsal; 6–8 — palp, prolateral, retrolateral and from above respectively.

Рис. 5–8. Самец *Euryopes episinoides*: 5 — габитус, сверху; 6–8 — пальпа, пролатерально, ретролатерально и сверху соответственно.



Figs 9–12. Female of *Neottiura herbigrada* from Bursa: 9–10 — habitus, lateral and dorsal, respectively; 11–12 — epigyne, ventral.
Рис. 9–12. Самка *Neottiura herbigrada* из Bursa: 9–10 — габитус, латерально и сверху, соответсвенно; 11–12 — эпигина, вентрально.

(Canary Islands to Israel, north to the Czech Republic) and from China (Hainan and Guangxi provinces). Similar disjunct ranges (between the eastern Mediterranean and the Far East) are known for two salticid species: *Phintella castriesiana* (Grube, 1861) and *Myrmarachne formicaria* (De Geer, 1778) and for 10 Caucasus–Far Eastern species [cf. Marusik et al., 2005].

Neottiura herbigrada (Simon, 1873)
Figs 9–12.

Theridion pustuliferum: Levy, 1998: 215, f. 408–410 (♀).
N. h.: Knoflach, 1999: 353, f. 6, 9, 20–22, 36–37, 45, 54, 58, 61, 67 (♂♀).

MATERIAL EXAMINED. 12 ♀♀ [T-11] Bursa Province, Campus of Uludağ University, 40°13.549'N 28°52.109'E, 423 m, dry meadow with tall grass, litter, 2–3.06.2009 (Yu.M. Marusik); 1 ♀ [T-13] İzmir Province, Kemalpaşa, Vişneli, 38°20.777'N 27°25.271'E, 311 m, xerophytic slope, Pine and spiny *Quercus* litter, 5.06.2009 (Yu.M. Marusik); 3 ♀♀ [T-14] İzmir Province, Karaburun, 1 km N of Parlak Village, 38°36.016'N 26°23.254'E, 170 m, under cushion shrubs, 6.06.2009 (Yu.M. Marusik).

COMMENTS. This species has a Mediterranean range and is recorded from southern France to Israel, north to northern Italy and Crimea [Kovblyuk, 2004]. Although *N. herbigrada* was reported from China and Korea [cf. Platnick, 2009] from female specimens, judging from the figures that were provided these records refer to the Far Eastern *N. margarita* [Yoshida, 1985]. Males of *N. herbigrada* occur from February to May [cf. Knoflach, 1999], so were not collected during the joint Turkish–Russian expedition, although females were rather numerous in Bursa. Females are illustrated in Figs 9–12. Males were well illustrated by Knoflach [1999], they have a pattern similar to females but have no abdominal tubercle. Males also lack leg pigmentation.

Neottiura uncinata (Lucas, 1846)
Figs 13–14.

Theridion uncinatum: Levy, 1998: 211, f. 401–407 (♂♀).
N. u.: Knoflach, 1999: 358, f. 19, 42–43, 48, 53, 57, 60, 63, 68 (♂♀).
N. u.: Wunderlich, 2008: 390, f. 532–533 (♂).

MATERIAL EXAMINED. 1 ♂, Antalya Province, Düzlerçamı locality, from way of Korkuteli, 20.05.2006 (T. Danışman).

COMMENTS. This species has a Mediterranean range and occurs from the Iberian Peninsula to Israel, north to southern France and northern Italy and south to Algeria, Tunis and Israel [Knoflach, 1999]. Males of this species have a highly characteristic shape to their palpal cymbium and bulbus. The habitus of the Turkish male is not illustrated because it has a damaged abdomen.

Theridion cinereum Thorell, 1875
Figs 17–22.

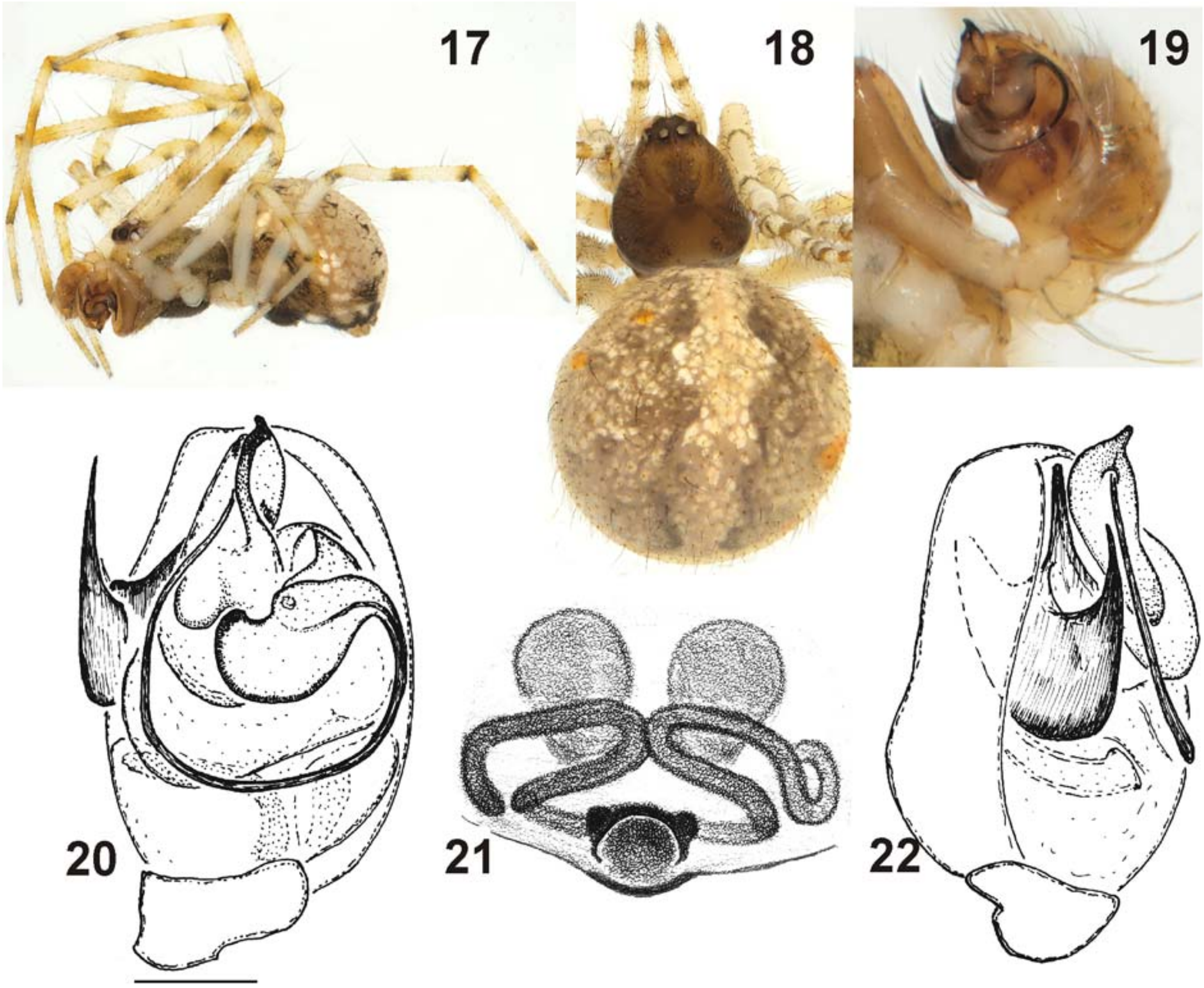
T. wiehlei: Thaler, 1981: 110, f. 11–13 (♂♀).
T. refugus: Deltshev, 1992: 20, f. 1–3 (♂♀).
T. r.: Knoflach, 1998: 589, f. 46, 52, 55d (♂♀).

MATERIAL EXAMINED. 1 ♂ [T-03] Ankara Province, Kızılcahamam, Camlıdere, 40°32.709'N 32°30.547'E, 964 m, under flat stones in pine forest, 28.05.2009 (Yu.M. Marusik); 1 ♀ [T-05] Ankara Province, Bala, Beynam Forests, 39°40.745'N 32°54.810'E, 1392 m, under stones, grass and shrub cushions on xerophytic slope, 29.05.2009 (Yu.M. Marusik).



Figs 13–16. Male palps of *Neottiura uncinata* (13–14) and *Theridion pinastri* (15–16): 13 — ventral; 14 — dorsal; 15 — retrolateral; 16 — prolateral.

Рис. 13–16. Пальпа самца *Neottiura uncinata* (13–14) и *Theridion pinastri* (15–16): 13 — вентрально; 14 — сверху; 15 — ретролатерально; 16 — пролатерально.



Figs 17–22. *Theridion cinereum*: 17 — male, habitus lateral; 18 — female, habitus dorsal; 19–20 — male palp, retrolateral and ventral respectively; 21 — epigyne, ventral; 22 — male palp, prolateral. 20–22 — syntype specimens from Crimea.

Рис. 17–22. *Theridion cinereum*: 17 — самец, габитус сбоку; 18 — самка, габитус сверху; 19–20 — пальпа самца, ретролатерально и вентрально соответственно; 21 — эпигина, вентрально; 22 —пальпа самца, пролатерально. 20–22 — синтиповые экземпляры из Крымы.

COMMENTS. *T. cinereum* was described from Crimea, but its type specimens have not been illustrated. YM had the opportunity to study the types of this species stored in the Natural History Museums of Stockholm and Helsinki. Comparison of the types and figures of *T. refugus* Drensky, 1929 illustrated by Deltshev [1992] and Knoflach [1998] led us to the conclusion that the two species should be synonymised (*T. refugus* Drensky, 1929 **syn.n.** = *T. cinereum* Thorell, 1875). This species is distributed from the Balkans to Azerbaijan, north to Austria and south to Turkey [Platnick, 2009; personal data].

Theridion pinastri L. Koch, 1872
Figs 15–16.

T. p.: Roberts, 1995: 284, f. (♂♀).
T. p.: Knoflach, 1998: 589, f. 42, 47, 53, 55b, 56–58 (♂♀).
T. p.: Roberts, 1998: 298, f. (♂♀).
T. p.: Song et al, 1999: 138, f. 78C–D, K–L (♂♀).
T. p.: Almquist, 2005: 103, f. 125a–f (♂♀).

MATERIAL EXAMINED. 1 ♂ [T-20] Artvin Province, 9 km NNW of Artvin, 41°15.642'N 41°46.365'E, 225 m, 13.06.2009 (Yu.M. Marusik).

COMMENTS. This species has a Transpalaearctic range and occurs from the Iberian Peninsula to Japan. Although it has a wide distribution and is recorded from almost all European countries, it has not previously been reported from Turkey.

Discussion

Including the new records listed above, the total number of Theridiidae recorded from Turkey now numbers 66 species. In comparison to countries such as France (112 species), Spain (103), Italy (100) or Germany (82) [Helsdingen, 2006], the species diversity of Turkish theridiids is rather low. The number of species recorded from Turkey is subequal to Slovakia (69), Poland (64), Greece (69), Hungary, United Kingdom



Map 1. Distribution of species newly recorded from Turkey. Numbered dots correspond to the localities studied during the Turkish–Russian expedition in 2009. Locality numbers are indicated in “Material examined”.

Карта 1. Распространение видов впервые найденных в Турции. Номера точек соответствуют номерам локалитетов приведённых в разделе “Material examined”.

and Greece (69) [Helsdingen, 2006]. The actual richness of Turkish theridiids is without doubt certainly much higher than 70. Among the material collected during the joint Turkish–Russian expedition there were more than 10 unidentified species from the genera *Dipoena s.l.*, *Euryopis* and *Theridion s.l.*. In addition, based on the known distribution of species belonging to genera such as *Achaeridion* Wunderlich, 2008, *Argyrodes* Simon, 1864, *Rhomphaea* L. Koch, 1872, *Rugathodes* Archer, 1950, *Theridula* Emerton, 1882 and *Ulesanis* L. Koch, 1872, these can also be expected to occur in Turkey.

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